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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/885,395	06/20/2001	Delphine Coppens	55550US006	3952	
	7590 03/16/2004		EXAMINER		
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427			EGAN, B	EGAN, BRIAN P	
ST. PAUL, MN 55133-3427			ART UNIT	PAPER NUMBER	
			1772		

Please find below and/or attached an Office communication concerning this application or proceeding.

•		Application No.	Applicant(s)			
Office Action Summary		09/885,395	COPPENS ET AL.			
		Examiner	Art Unit			
		Brian P. Egan	1772			
Period f	The MAILING DATE of this communication ap or Reply	pears on the cover sheet w	ith the correspondence address			
A SH THE - Exte afte - If th - If Ni - Fail Any	MAILING DATE OF THIS COMMUNICATION. ensions of time may be available under the provisions of 37 CFR 1. r SIX (6) MONTHS from the mailing date of this communication. e period for reply specified above is less than thirty (30) days, a reply period for reply is specified above, the maximum statutory period ure to reply within the set or extended period for reply will, by statut reply received by the Office later than three months after the mailing led patent term adjustment. See 37 CFR 1.704(b).	136(a). In no event, however, may a ply within the statutory minimum of thir will apply and will expire SIX (6) MON	reply be timely filed ty (30) days will be considered timely. ITHS from the mailing date of this communication.			
Status						
1)🖂	Responsive to communication(s) filed on 15 L	December 2003.				
2a)□	2a) ☐ This action is FINAL . 2b) ☒ This action is non-final.					
3)	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
	closed in accordance with the practice under	Ex parte Quayle, 1935 C.D	. 11, 453 O.G. 213.			
Disposit	ion of Claims					
5)□ 6)⊠ 7)□	Claim(s) <u>1-12</u> is/are pending in the application 4a) Of the above claim(s) is/are withdra Claim(s) is/are allowed. Claim(s) <u>1-12</u> is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and/or	wn from consideration.				
	on Papers	·				
	The specification is objected to by the Examine	_				
	The drawing(s) filed on is/are: a) acc		by the Eventines			
	Applicant may not request that any objection to the	drawing(s) be held in abevan	ce See 37 CER 1.85(a)			
	Replacement drawing sheet(s) including the correct	ion is required if the drawing	s) is objected to See 37 CFR 1 121(d)			
11)	The oath or declaration is objected to by the Ex	aminer. Note the attached	Office Action or form PTO-152.			
	nder 35 U.S.C. § 119					
12)⊠ <i>a</i>)[Acknowledgment is made of a claim for foreign All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau ee the attached detailed Office action for a list of	s have been received. s have been received in Ap ity documents have been r i (PCT Rule 17.2(a)).	pplication No received in this National Stage			
Attachment	of References Cited (PTO-892)	4) 🗔 Intonious Su	mman/ (PTO 412)			
2) Notice 3) Inform Paper	of Draftsperson's Patent Drawing Review (PTO-948) ation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) No(s)/Mail Date	Paper No(s)	mmary (PTO-413) Mail Date ormal Patent Application (PTO-152) -			
U.S. Patent and Tra PTOL-326 (Re	. 4.04)	ion Summary	Part of Paper No./Mail Date 20040225			

Art Unit: 1772

DETAILED ACTION

Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1-2, 4, and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stahl (#6,194,044) in view of Silver et al. (#5,118,750).

Stahl teaches a label comprising (in the order given) a backing layer (Fig. 2, #12), a first adhesive layer comprising a heat activatable adhesive (Fig. 2, #14), and a second adhesive layer other than a hot melt adhesive layer, i.e., a pressure sensitive adhesive layer (Fig. 2, #16). The second adhesive layer is provided directly on the first adhesive layer (see Fig. 2). The first adhesive layer is non-tacky at temperatures less than 25°C and is activated when heated to a temperature between 280 and 350°F (137.7-176.6°C) (Col. 4, lines 28-33). A removable protective layer protects the second adhesive layer (Fig. 2, #18). Although Stahl does not explicitly teach the thickness of the second adhesive layer, Stahl teaches that the thickness is limited to allow the heat activatable adhesive to penetrate the pressure sensitive adhesive coating upon application of heat (Col. 3, lines 18-21). Therefore, it would have been obvious to one of ordinary skill in the art at the time Applicant's claimed range insofar as the heat activatable adhesive layer thickness within the Applicant's claimed range insofar as the heat activatable adhesive is able to penetrate the pressure sensitive adhesive coating upon application of heat. Furthermore, it would have been obvious to one of ordinary skill in the art at the time

Art Unit: 1772

Applicant's invention was made to have modified the thickness of the second adhesive layer within the Applicant's claimed range, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Stahl teaches that the pressure sensitive adhesive coating is preferably an acrylic ester, polymer or copolymer, silicon resin, polyurethane dispersion, EVA, or rubber-solvent blend (Col. 3, lines 15-17), but fails to explicitly state whether the pressure sensitive adhesive can comprise elastomeric microspheres. It is notoriously well known in the pressure sensitive adhesive art, however, to provide repositionable pressure sensitive adhesives with polymeric, acrylate, inherently tacky, infusible, elastomeric microspheres comprising at least one alkyl acrylate or alkyl methacrylate ester as evidenced by Silver et al. (see Abstract). Silver et al. teach the use of elastomeric microsphere comprising PSA for the purpose of minimizing the loss of adhesive capability of the PSA from the repositioning of the adhesive while also minimizing transfer of the PSA to the attached substrate (Col. 1, lines 16-28; Col. 3, lines 12-23). It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to have combined the teachings of Stahl and Silver et al. since each of the aforementioned references are analogous insofar as being directed at pressure sensitive adhesive substrates, the teachings of Silver et al. providing a comparative advantage over the PSA of Stahl insofar as improving upon the repositionability of the adhesive substate.

Therefore, it would have been obvious to one of ordinary skill in the art at the time

Applicant's invention was made to have modified Stahl to include elastomeric microspheres

within the pressure sensitive adhesive layer as taught by Silver et al. in order to minimize the loss

Art Unit: 1772

of adhesive capability of the PSA from the repositioning of the adhesive while also minimizing the transfer of the PSA to the attached substrate.

3. Claims 3, 5, and 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stahl (#6,194,044) in view of Silver et al. (#5,118,750), and further in view of Bingham (#3,758,192).

Stahl and Silver et al. teach an adhesive label as detailed above. Although Stahl teaches the use of a fabric backing layer (Col. 2, line 67), Stahl fails to explicitly state whether the fabric backing layer comprises retroreflective material and whether the backing layer comprises release material on the side opposite the adhesive layers.

Bingham teaches a label for affixing to a garment ("fabrics"; Col. 1, lines 7-9) wherein the label comprises a backing layer (Fig. 7, #16) and first (Fig. 7, #18) and second (Fig. 7, #28) adhesive layers. The second adhesive layer is provided directly on the first adhesive layer (see Fig. 7). The backing layer has a first and second major side wherein one side is a fabric (Fig. 4, #22) in combination with retroreflective material (Fig. 7, #14) and the side opposite the retroreflective side carries the first and second adhesive layers (see Fig. 7). The first adhesive layer is non-tacky at temperatures less than 60 degrees Celsius ("layer is cured at 60 degrees Celsius"; Col. 8, line 3) and permanently bonds the backing layer to a garment when heated to a temperature between 85 and 160 degrees Celsius (Col. 10, lines 17-19). Both the first side of the backing layer and the outer surface of the second adhesive layer comprise removable layers protecting the label prior to affixing it to a substrate (Fig. 1, #10 and Fig. 7, #26, respectively). The label further includes means for retroreflecting light carried by the side of the backing layer opposite the adhesive layers wherein the retroreflective means are selected from glass beads or

Art Unit: 1772

microspheres (Col. 1, lines 9-10). Bingham teaches the use of retroreflective material as well as the use of a removable layer on the first side of the backing layer for the purpose of imparting an improved reflective property in fabrics (or signs and transfer films) (Col. 1, lines 7-12). It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to have combined the teachings of Stahl and Bingham since each of the aforementioned references are analogous insofar as being directed at improving the applicability of adhesive substrates.

Therefore, it would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to have modified Stahl to include a retroreflective material as well as a release material on the first major surface of the backing layer as taught by Bingham in order to impart an improved reflective property to the fabric backing layer.

Response to Arguments

4. Pursuant to the amended claims and Applicant's remarks in the response filed on December 15, 2003, the Examiner has withdrawn the 35 U.S.C. 103(a) rejection of claims 1-12 over Bingham ('192) in view of Baker ('152). Bingham does not provide any motivation to replace the second hot melt adhesive layer with a non-hot melt adhesive layer comprising elastomeric microspheres. The Examiner has therefore presented the new grounds of rejection above.

Art Unit: 1772

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Egan whose telephone number is 571-272-1491. The examiner can normally be reached on M-F, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DN 12/25/04

HAROLD PYON
SUPERVISORY PATENT EXAMINER 2/25/04